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THE
BIBLIOTHECA SACRA.

ARTICLE I.

LAW, PROVIDENCE, AND PRAYER.

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THE Christian believer will not readily surrender his faith in the reality and the absoluteness of the divine government of the world in which we live. To do so would be to abandon a fundamental article of his creed, to ignore one of the clearest and most prominent doctrines of his great text-book, to cut adrift from the sheet-anchor of his most precious faith, and commit himself to the darkness, the billows, and the storm, with chance instead of beneficent Providence as pilot, and, in place of infinitely intelligent purpose, naught but blind, inexorable force at the helm.

The belief in an ever-present, all-controlling Omniscience is of the very essence of the Christian faith; because that, and that alone, can explain the inception, the unfolding, the consummation, and the personal application of the great redemption. And certainly no other truth is more clearly taught or more constantly illustrated in the Bible. On every page it reveals a "God near at hand, not afar off," the great source and centre of all life, all government, all love. No event is so trivial, no creature so insignificant, as to escape his notice; no force so mighty, no influences so complicated or so far-reaching, as to put at fault for an instant his infinite

prescience, or turn aside a hair's breadth from its aim his eternal, all-embracing purpose. Nay, rather, all being, all life, all action, all development, all change, are but an infinite series of expressions of his omniscient thought, or manifestations of his omnipotent will. And this God is the Christian's Friend and Father, his refuge in danger, his solace in sorrow, his light in darkness, his all in all. All language fails to convey any adequate conception of the certainty, the completeness, the ineffable blessedness of the divine care and love upon which the child of such a Father is taught that his filial heart may rely, without presumption and without misgiving.

We place side by side with such a faith as this the cold, dark creed—for creed it likewise is—which aims to demonstrate with scientific precision that all beings of whatever order, all events of whatever nature, are but so many products of certain blind, inexplicable, and inexorable forces, operating upon, perhaps inherent in, particles of matter of whose origin no account can be given; which either claims to have reached, or promises soon to reach, a stage of scientific discovery whose effect must be to “quench all possibility of belief in the divine interposition under the overwhelming pressure of a changeless law of evolution from the time when the globe was a chaos of nebulous matter”; which logically concludes either that it is equally “unscientific”—cruel word—to affirm or to deny the existence of a God, or, condescending to assume his existence, that we can know nothing of his attributes, seeing that he has so put the universe of which we form an insignificant part out of his hands—so given over the motions of atoms and of worlds, the destinies of men and of nations, to the operation of non-intelligent forces and laws, that he can no longer modify their action to succor a saint or save a nation. Thus coolly and cruelly is man, with all his instinctive and historic faith in a “Divinity that shapes our ends” relegated down to the position of a wretched denizen of a “forsaken and fatherless world,” or, at least, compelled to relinquish utterly all the joy of a filial trust in a great All-Father, and to satisfy his

aspirations "with cherishing the noblest and most human of man's emotions by worship, for the most part of the silent sort, at the altar of the Unknown and the Unknowable."

Looking on this picture and on that, can we wonder if the Christian disciple is prepared to cling as for life to his faith and his God; refusing to relinquish them at the bidding of anything but the clearest, most unanswerable demonstration?

We do not put the case too strongly. Few thoughtful minds can doubt that the issue between the faith of the Christian and the teachings of an influential class of modern scientists is thus broad and vital. "The natural" is striving, as the Duke of Argyll has said, "to cast out the supernatural." True, there are not wanting those, both within and without the pale of the Christian church, who are casting eagerly about to find some golden mean, some neutral territory, or place of compromise. But upon a question so tremendous in itself and so vital to our most precious interests, there can be no compromise and no neutrality. If the Bible teaches anything, it surely teaches that the omniscient sovereignty which notes the fall of a sparrow, or a hair, is absolutely unlimited, and that the prayer of faith lays hold upon the hand of Omnipotence. And, on the other hand, Science herself, whose whole course is but a perpetual gliding from link to link of an infinite and infinitely involved chain, and who is thus continually tracing back to events the most trivial, the most stupendous issues, must no less emphatically affirm that if the influence of the superhuman upon the earth is not absolutely *nil*, human thought can set no bounds to it.

And here it may be worth while to observe that this issue so fraught with intensest interest to mortal — perhaps immortal — men is no new one. It is but a new form of the "conflict of ages." The metempsychosis of rationalism itself, its Protean facility in change of shape and garb, is one of the many curious phenomena which rationalism will find it difficult to explain, unless upon the assumption that each form of it has its own peculiar orbit in the universe

of thought, in which it is certain at regularly recurrent points to intersect again the plane of philosophic inquiry. The human mind, untaught by, or unsubmissive to, revelation, seems to have ever been more or less in a state of oscillation between irrational religion and irreligious rationalism. Comte's law of the three states has no historical basis. As Professor Huxley has shown: "It is absurd to say of men in a state of primitive savagery that all their conceptions are in a theological state. Nine tenths of them are eminently realistic, and as positive as ignorance and narrowness can make them." Nor, on the other hand, need we go back to the infancy of the race or the individual, or even to that of philosophic thought or scientific method, to find the human intellect in its theological stage. The devout worshipper of the Invisible, in the dim foretime of the race, whose soul thrills responsive to every grander sight and sound of nature, and who stands awe-struck in the presence of the majesty and the mystery in which the great mother constantly enshrouds her operations; to whom every flutter of her robes is instinct with supernatural influence, and every tone of her myriad voices prophetic of coming woe or weal; whose all-personifying faith never for a moment questions both the ability and the willingness of the deities it worships to be touched with the sorrows and moved by the prayers of mortals, is not without his counterpart in the latter half of the nineteenth century. To-day, in this era of intense intellectual activity, are to be found many men, the peers of any others in mental breadth and culture, and even in successful devotion to science proper, who cherish a belief in the constant agency of superhuman intelligences and in the personal and all-embracing rule of a Supreme Intelligence, as strong and unswerving as any which lives in epic song or Oriental tradition.

But if the question cannot be decided by the *argumentum ad verecundiam*, no more can it by the *argumentum ad judicium*. It can no more appeal to the common sense of the many than to the authoritative opinions of the few. We

cannot for a moment admit the *a priori* superiority tacitly assumed for the so-called positive mental stage by both Comte and his reviewer. In the first of the three states, we are told, an immediate "supernatural origin is sought for all phenomena, and the *Deus ex machina* is the only explanation of events." The second deals with certain "abstract forces, or entities, supposed to inhere in various substances, and to be capable of engendering phenomena." In the third, the mind abandons as vain and hopeless all search after causes and essences, and "restricts itself to the observation and classification of phenomena, and to the discovery of the invariable relations of succession and similitude which things have to each other, in a word, to the discovery of the laws of phenomena." Now, if it be true, as so many acute minds of the present day seem to have become convinced, that this last statement adequately describes the sphere and bounds of all our actual and possible knowledge, and indicates correctly the goal towards which the cultivated intellect of the nineteenth century, casting aside the fetters of a useless metaphysics and an effete theology, is rapidly tending, the fact is certainly a most humiliating one. To the human soul, hungering for a knowledge of realities, yearning to discover or be taught what matter, life, thought are, and what their destinies, it is but a poor consolation to be cited in reply to a "mere ticketing and orderly assortment of external facts," which can but aid it in understanding and remembering how they exhibit themselves. It asks for bread, and is given a stone. If this be indeed the sum of all attainable knowledge, it will be found difficult to account, either on scientific or on moral principles, for this intense longing of which every awakened mind is sometimes conscious, for some deeper insight into those great mysteries. The positivist, it is clear, cannot attempt to account for it without serious danger of being betrayed into some of those philosophical "Hibernicisms" which Argyll so pithily describes. And truly, if there be anywhere in the great universe some brighter sphere, whose inhabitants, by virtue of higher

endowments, are enabled to get but a single step behind mere phenomena, and so one step nearer to the mysteries of essence and origin, of real being and real causation, and if these favored intelligences, in the exercise of their wider scope of vision, are able to look down upon our little globe, and study the intellectual states and operations of its inhabitants, — taking in at a glance the long, long history of the ambitious, but abortive past of human philosophy, and comparing it with the narrow domain and small ambition of the scientific present, — the spectacle cannot fail to awaken in their bosoms mingled feelings of pity and amusement. It is by no means clear that they would be so ready to recognize the extent and value of the progress indicated by the alleged change of mental processes. Possibly, from the point of view of those loftier intellects, the first and simplest mode of thought, with all its grandeur of conception and wealth of imagery might be seen to be, after all, but the more immediate product of an acuter intuition, and so but a short cut to a higher generalization, than any within the reach of the physiological and experimental methods of later days. Nay, it might even be manifest to such intelligences that the human mind in its second or so-called metaphysical stage, intensely alive to the constant and ever-potent action of unseen agencies within and without, and striving by sheer force of introspection on the one hand, or hypothesis on the other, to reach some definite, harmonious conceptions of the modes and attributes of the unseen, was really delving for deeper truths and cherishing loftier aspirations, or, at least, sharpening for the revelations of the future, keener appetites, than are possible to the scientific intellects of those who, with a shrug and a sneer for the blindness of the past, resolutely turn their backs upon what they have labelled “the unknowable,” and, in the exercise of a kind of conscious selection, smothering at birth all cravings after the supernatural, set out to explore the realm of all possible knowledge with the lens, the balance, and the crucible.

It will be seen that it is by no means the correctness within

its own large sphere, or the immense practical utility of the "scientific method," that we impugn, but the exclusiveness claimed for it by some of its votaries. The disposition to search after real causes, and to refer phenomena to underlying substances, is as deeply ingrained in our mental constitutions as our fondness for assorting and generalizing facts. The child of nature in his primitive simplicity is, no doubt, more attracted by the manifestation itself than its mode. His attention may be so absorbed by the exhibition of power that he fails to trace the all-pervading method. But may it not be said that the tendency of the modern scientist, on the other hand, is to regard exclusively the manner of the manifestation, and, absorbed in the work of studying, analyzing and classifying the *phenomena*, to lose sight of the originating *noumena*?

In any case it is clear that it is phenomena, or in other words, facts, accessible to observation and experiment, which form the basis and starting-point of all our knowledge. Without further discussion of the proper mode of using these facts, we propose now to consider for a little the question to what extent the method of investigation which restricts itself and all true philosophy to "the discovery of the laws of phenomena," is capable, on its own principles, of affording complete results. Admitting, for argument's sake, that the human mind can learn nothing of the nature of causes and essences, and that the only explanation, or rather substitute for explanation, of things and events, to which it can properly aspire, is that reached by processes of generalization, the inquiry naturally arises, to what extent is this process applicable to the facts of nature and of human life?

We must, however, premise one remark more. That of which we are in search, and which the mind craves with an intensity that refuses to be turned aside, is *explanation*. Hence it is useless to deal with any statement, or theory, which begs the whole question by striving to steer clear of any attempt at this, and to shut us down to the mere "assortment and ticketing" of the dry facts themselves, ignoring

even such conceptions as those of law and force and cause. Such attempts, although always and necessarily abortive from the very nature of the mind, have in themselves, it must be confessed, a logical consistency. They foresee the objection which might be urged, that there is of necessity in every act of generalization a metaphysical element. For as in every transition from observed facts to the underlying law, the law reached is more extensive than the sum total of the facts, it is clear that the basis and pillars of the extension are to be found in some process of inference, grounded upon some internal conviction. This conviction, albeit it may be in itself an induction, must nevertheless have some of its prime factors or constituent elements in the mind itself—in some innate power or tendency having more or less of the nature of intuitive cognition. Else we are inevitably drawn in a vicious circle, to seek the origin of our power of generalizing in an act of generalization.

The word "law" has been exalted to an unwonted, possibly an undue, eminence, in modern science. It is the concise expression of the aim and end of the positive philosophy. We cannot doubt that the large class of able and distinguished men who have accepted with more or less reservation and deviation the fundamental principles of Comte's system—whether they regard him as the originator of that system or not—would unhesitatingly give in their adhesion to his thesis, as a correct statement of the aims and limitations of true scientific inquiry. It must henceforth, in their opinion, "restrict itself to the observation and classification of phenomena, and to the discovery of the invariable relations of succession and similitude which things have to each other; in a word, to the discovery of the laws of phenomena." The sway of law is, in their esteem, universal and absolute. They find it in every region of the great domain of nature; in the deposition of the clay; the crystallization of the mineral; the growth of the plant; the development of physical, intellectual, and moral life. It balances the clouds, rules the tempests, controls the mighty natural

forces, holds and moves the unerring spheres in their orbits, determines the characters and destinies of men. In every region of inquiry they discover law behind law, law interlacing with law, law modifying or over-riding law, until at length the whole universe of things existing, growing, moving, feeling, thinking, and willing, reveals itself to the keen second-sight of the scientific seer, springing like an exhalation, at the omnipotent fiat of law, from some primeval chaos of stardust, and gradually and grandly unfolding and developing itself, ever under the influence of some newer and higher phase of law, into the glorious cosmos of the nineteenth century.

Now, however unwilling we may be to accept the fundamental principles of the positive school, or the narrow limits it assigns to philosophic investigation, it is by no means the aim of this Article to disparage either the methods or the results of modern science. No candid mind can affect, no thinking one can afford, to despise the one or the other. Rich, almost exhaustless, and yet constantly accumulating stores of the most interesting and suggestive facts, culled from a thousand fruitful fields of inquiry, are already treasured up for our inspection, while such broad and magnificent generalizations as universal attraction, the absolute indestructibility of both matter and force, the correlation of physical forces and, we might add, evolution, were there any probability of its ever being established, reveal to us a harmony, a unity, and a simplicity in the operations of nature, which would have come to the wisest of our ancestors as a revelation. Both the patiently assorted facts and the grand inductions make large demands upon our admiration and our gratitude, and the meed is cheerfully accorded.

Our present aim is simply to inquire, and to inquire from a single point of view, how far the "discovery of the laws of phenomena" constitutes not merely a legitimate and highly important, but the only true, end of scientific investigation. We shall, of necessity, pass by many aspects of the question, suggestive of difficulty and defect in this postulate of pos-

itivism, which have been frequently and forcibly presented. Admitting, for argument's sake, that the human mind can learn nothing of the nature of causes and essences, and that science should attempt to deal with phenomena only, the question seems to us still pertinent: Is it true that *all* the complicated phenomena of the world in which we live are susceptible of reduction to law? Is there sufficient reason for believing that this is the one master-key upon which we may confidently rely for ultimate admission into the innermost penetralia of the great temple of Nature's mysteries?

We think we may venture to expect assent to the following proposition. A scientific induction, or generalization, is complete and satisfactory only in so far as it embraces all the facts or phenomena for which it is intended to account. Just in proportion as all the individual cases which come within the range of the special inquiry can be shown to fall into order and harmony under the supposed principle or law, just in that proportion has a satisfactory scientific solution of the problem been reached. And, on the other hand, just so far as it can be shown that certain facts are left unexplained by, or at direct variance with, the supposed principle, just so far does the latter fall short of a complete result, or verge towards entire failure. It may, or it may not, be valuable so far as it goes, but it evidently cannot be accepted as the final goal of inquiry upon the subject. And hence, by an easy and manifest induction, we reach the general conclusion, that in so far as any philosophic system or method can be shown to fall short of affording an actual or conceivable explanation of all the natural phenomena which form the subject-matter of its investigations, it fails to meet the necessary conditions, the manifest requirements, of the fundamental principle of modern science. This being admitted, if it can be shown that a large and interesting mass of undoubted facts, facts patent to all observation and experiment, not only refuse to fall into order at the bidding of any known law, but actually exhibit in their very nature features utterly irreconcilable with every scientific conception of the meaning

of the word, it is evident that either these facts must be shown to lie entirely beyond the scientific pale, or the philosophic theory which fails to account for them stands sadly in need of enlargement.

The Duke of Argyll, in his "Reign of Law," has defined with scientific precision the various meanings and shades of meaning attached to the word "law" in its usage by men of science. Without attempting a nice observation of any of those distinctions, it will be sufficient for the present purpose to note that the essence of the term, in all its wide range of application, may be found in the idea of *uniformity*. We use this latter word in one of its legitimate senses, as denoting conformity to a pattern or rule. The notion of uniformity may be attached simply to the observed characteristics of the phenomena themselves, or to the order of their occurrence, or to their relations as sequences of similar antecedents, or products of the action of so-called forces, but in each case it will be seen that the uniformity is either itself the law, or is the indication and proof of the existence of the law. Hence it is manifest that the scope for the discovery of "laws of phenomena" must be exactly co-extensive with the existence of features of uniformity in the visible or experimental characteristics of natural objects. This uniformity may, it is clear, be regarded as either perfect and absolute, or as admitting of degrees. For convenience' sake we may use the words "resemblance" and "similitude" as synonymous with it in the latter sense.

To say that the phenomena of nature afford unlimited scope for the study of uniformity in its restricted sense, or the "discovery of relations of succession and similitude," would be to utter a mere truism. It would be the trite enunciation of a fact which is the basis of all classification, and so co-extensive not only with the vast area of the physical sciences, but with the material of all those broader generalizations in the spheres of politics and ethics which constitute the corner-stones of the fabrics of modern civilization. The "invariable relations of similitude" constitute the basis of

scientific classification. From those of succession we get by means of original suggestion, or induction, or some other agency, our notion of cause and effect. The former enables the explorer to construct those elaborate systems of steps and terraces which render comparatively easy to his successor the ascent of the vast slopes and acclivities of natural history. The latter prompts him to the more arduous but fascinating task of attempting to thread the intricate and mysterious labyrinths of natural philosophy, and to lay down clues for the guidance of those coming after him. With regard to the latter of these subdivisions of the realm of science we care not now what speculative views may be held of the origin of our notion of causation. John Stuart Mill's definition of the law of causation, "that invariability of succession is found by observation to obtain between every fact in nature and some other fact which has preceded it," will do as well as any other. "To certain facts, certain facts always do, and, as we believe, always will succeed." "*Let the fact be what it may, if it has begun to exist, it was preceded by some fact or facts, with which it is invariably connected.*" We emphasize this last statement, whose truth is obvious, for the sake of calling attention to the following corollaries. First. If in a given case in which the physical antecedents are, so far as scientific observation can determine, precisely similar, the consequent facts are found to vary, the variations must be due, in every instance, to some other unknown cause or antecedent. Second. If, in the given case, the varying facts are found to exhibit features individually distinct and peculiar, each fact must have a distinct and peculiar cause or antecedent. In other words such facts cannot have their origin in any common cause having the nature of a law.

Holding in mind these principles, we pass to notice a great fact which seems to us to have an important bearing upon the subject of discussion, and to be utterly incapable of being harmonized with the assumption that all natural phenomena are explicable by law.

There is no such thing as absolute uniformity in nature. Prominent amidst the ever-present, ever-abounding similarity there is also an ever-present, intense individualism. Probably no two objects in all the realm of nature are precisely alike. Could the existence of rare exceptions be demonstrated they would but prove the rule. Let the student of science make his subdivisions co-extensive with the existence of *differentiæ* on which to found them, and the work of classification will stop, in each instance, only with the individual. In the overlooking or ignoring of this fact inheres, it seems to us, the radical defect, the want of universal applicability, of the modern scientific method. The fact itself is too obvious to need argument or admit of dispute. A little illustration, the material for which everywhere abounds, may render clearer its bearing upon our present position. For the purpose of such illustration the phenomena of nature may be conveniently grouped into three classes; viz. the facts of the physical world, the events of human life, and mental and spiritual manifestations.

We turn our eyes to the crust of the globe upon which we live. Here Science, in her search after relations of succession and similitude, has been abundantly successful. She can point with unwavering confidence to evidence which cannot be gainsaid of the operation of mighty natural forces upheaving, disrupting, fusing, disintegrating, depositing, levelling, through long ages. Up to a certain point the action of these forces—we use the word “force” in its modern acceptation, as denoting the unknown but uniform cause of observed effects—affords an explanation, satisfactory on scientific principles, of the phenomena. But whence the infinite diversity in the effects of these single or combined causes—a diversity co-extensive with the effects themselves? Where on all the broad surface of this fair earth can we find two hills or valleys or plains or lakes or seas or streams, nay, two boulders or crystals or grains of sand, the exact counterparts of each other? The operating cause or causes must, according to science, have been in countless instances absolutely

uniform. But striking resemblances in general features, coincident with most striking varieties and peculiarities in detail, is all that can be affirmed of the effects. The question of varying conditions as distinct from operating forces will presently be considered.

We mount a step higher. We turn our attention to the vegetable products which beautify this crust, and fit it to sustain animal life. We stay not now to inquire how the origin of these endless varieties of genera and species can be accounted for by any theory of law, pure and simple, i.e. by any combination of forces or agencies which must be blindly uniform in their operations, and utterly incapable of any kind of selection; but we descend through the bewildering and almost interminable series of divisions and sub-divisions, classes and sub-classes, order and sub-orders, genera and sub-genera, species, sub-species, and varieties, not without ardent admiration of the talent, skill, and patience with which the system has been elaborated. But no matter which of the thousand branching paths we take in our descent, our guiding genius of classification can find us no natural resting-place, no dead level, however small, of absolute uniformity, until we reach the individual. Every constituent unit, in all the countless tribes of vegetable products, exhibits features of external form and internal structure more or less distinct from those of every other.

We mount higher still, and enter the regions of animal life. Still the same unending variations everywhere wrought with infinite skill into every pattern. The trite remark that no two human faces are exactly alike, is but the expression, in regard to a particular class, of a fact as broad in its manifestation as the whole range of the animal creation — a fact so patent in the case of the larger animals that it would be idle to offer illustration or proof. And what is true of the mere outer form and expression holds, with ever increasing force and distinctness, when we ascend to the sphere of mental activities and endowments. To the existence of different grades and shades of mental capacity in the lower animals

of the same species, Darwin, the prince of observers and experimentalists in this region — in compliment to whom we use the word “mental” in this connection — bears ample testimony. The marked and marvellous individuality in intellectual and moral features which characterizes the whole human family is proverbial. Could one look down from the tower of St. Paul’s in London, with some optical instrument capable of piercing to the thoughts, feelings, and intents of each heart amidst the teeming millions, he would discover in all the vast throng no two the exact *fac-similes* of each other in the “inner man.” “The heart of each knoweth its own bitterness, and a stranger intermeddleth not with his joy.”

Now, we ask, what has that scientific system whose fundamental principle is the all-prevalence of law to say to this? Take the very lowest view of the sphere of philosophy. Confine its operations to mere classification. Nothing can afford a more incomplete or unsatisfactory result, inasmuch as the last analysis of similitudes leaves still a residuum of phenomena, a thousandfold more numerous than the individual objects of study, which obstinately refuse to be classified. What shall be done with these? What remains for the philosophic system which deals wholly with similitudes when all similitudes are exhausted, and a large mass of unused and unexplained material is left behind? Shall it not summon to its aid some other more flexible hypothesis? Or shall it simply stop short in its researches, and relegate every fact which will not submit to its conditions down to the dark realms of the vast unknown? Our perceptive faculties seem quite as well adapted for the observation of individual peculiarities, as for tracing class resemblances. Shall, then, all that vast mass of facts which, for want of a better word, we shall call *individualisms*, be passed by unobserved, or thrown aside as inexplicable, simply because they fail to submit to the requirements of a system or the exigencies of a dogma?

But let us take the higher view of the functions of science, in which she traces “invariable relations of succession,” as well as of “similitude,” and ascribes observed uniformities in

effect to the operation of uniform, though unknown, causes, which she calls "forces" or "tendencies." It is manifestly inseparable from the scientific conception of these causes that, the conditions being the same, they must give rise to precisely similar results. They are blind. They are unipotent. In whatsoever plane they operate, whether physical, mental, or moral, they are adapted each to the production of one, and but one, result. When, for instance, we harness one of the great natural forces to machinery we confidently expect uniformity in its operation. Our very power of utilizing those forces depends upon this characteristic. The only source of possible variety in the results must be found either in natural differences in the material operated upon, or in changes and adjustments of the machinery. The same is true, the positive philosophy teaches us, even in the higher region of morals, insomuch that when the power is brought to bear in the shape of motive, the conditions external and internal remaining unchanged, uniformity is inevitable and the result can be surely predicted. We shudder at the conception of such a world as would be the legitimate product of such a *modus operandi*, pure and simple. Admit the most complicated interactions and adjustments for the sake of variety — although it is difficult to see how law could account for these — and yet, after taxing to the utmost our powers of conception in this direction, what can we possibly reach but a cosmos in which the types and shades of difference between class and class shall be uniform and constant somewhere? In the lowest sub-classes, at least, we must find a region of tiresome *fac-similes*, of drear uniformity. The idea of law, or any congeries or network of laws, in themselves utterly destitute of power of choice or conscious selection, giving forth myriads of products, so that each individual product shall exhibit manifest idiosyncrasies, is, we hold, utterly inconceivable, apart from the re-adjusting agency of something akin to a superintending intelligence.

But the conditions. These, we shall be told, make all the difference. We have been obliged to postulate that these

shall remain unchanged, in order to reach our conclusion, while, in fact, they are ever shifting and so giving rise to all the varieties in question. We reply,

First, is there not here a vicious circle in the reasoning? The reign of law, universal law, is predicated as an induction from observed similitudes. Must not, then, the induction logically stop or fail when the similitudes, or the ability to trace them, ceases? Can the inductive logic be permitted to belie its own principles by resorting, in its straits, to a hypothesis to help it out? Might not, for instance, one who attributed every effect in nature to the direct, immediate operation of an infinite will, just as logically attempt to account for all the striking similitudes in phenomena by ascribing them to "accident," or the "nature of things," whatever those expressions may mean? We have sometimes thought a curious problem might be propounded to the advocates of evolutionism, somewhat as follows: Given, so many elementary substances as chemistry can discover — not to say such a threefold unity as is found in the microscopic protoplasm — to construct from these a world containing as many individuals as our own in its three kingdoms, each individual as well adapted to its own particular sphere and functions, with less of similarity in plan and structure than that which constitutes the basis of the theory of evolution. We doubt if large demands would not be made upon the philosopher's powers of permutation and combination before the solution was reached. The point we here make is this. Admitting, as the logic of facts must compel us to do, the existence side by side, throughout all the world of nature, of similitudes and individualisms, the one suggesting law, the other, something the very antipodes of law, why select the one class to the exclusion of the other, as the basis of a philosophic system?

Again, the question of conditions only removes the difficulty a step, or rather step by step, backward. Are not the conditions themselves both the subjects and the products of law? Mr. Mill, in his treatise on Logic, shows clearly that our

selection of one antecedent and calling it the cause and all others conditions, is to a great extent arbitrary. We might with equal propriety, and do where it suits our purpose, remand this cause back to the rank of a condition, and raise some other condition to the dignity of a cause. Hence, it is clear, we are led back to the complicated network of laws which, as above shown, must at the last inevitably land us in a region of absolute uniformity. To take the other horn of the dilemma, and assert that the conditions are not themselves laws, would be, of course, to give up the whole case, by introducing some foreign agency distinct and different from that of law.

Thirdly, this plea of changed conditions is nugatory, inasmuch as, in multitudes of cases, it cannot be proved by observation, or experiment, i.e. by true scientific methods. Twin acorns grow side by side upon the same twig. They fall into the same soil at the distance of a few feet from each other. Yet ten years after the resulting trees will present ten thousand distinctly marked peculiarities in height and length and angle of branches, in number, shape, and size of twigs and leaves. Where shall we find the causes? In the germs, or in the soil, or in the situation? And if found in the one or the other, or elsewhere, what were *their* causes, and what the causes of their operating just as they have done upon the respective plants? May we not, in strict accordance with scientific principles, thus go back from one physical cause to another until we reach a point at which some antecedent cause radically different from and independent of our law-abiding forces, some seemingly voluntary, often seemingly capricious, *vis viva* reveals itself in individualisms from which originated all the peculiarities in question? This point is well illustrated in Darwin's theory of the origin of species. The starting-point of each species must be sought for in some original accidental variation. But what is this accident? Whatever it is, Science evidently has no place for it in her creed, unless it be regarded as a synonyme for the unknown cause to which the same writer, in other places, attributes

similar phenomena. But may not this unknown cause, which occasionally produces striking variations, anomalies, be identical with that which constantly gives rise to the slighter individual peculiarities of which we are speaking? And if so, why may it not be the chief and constant agent in gradually effecting those permanent results for which his theory is intended to account? That those peculiarities play a very important part in the economy of nature, no matter through what philosophic lens it is viewed, is abundantly manifest. Professor Huxley, in one of his published addresses, has shown, "the advisableness of improving natural knowledge" from a view of its practical utility in revealing the laws which govern the ravages of such agents as fire, disease, etc. Illustrations of that utility abound. Science is even now rendering immense benefits to society, by noting the starting-place and predicting the course of storms and hurricanes. But there is evidently a question for philosophy behind all this. The barometer has fallen suddenly in a certain district. Why? What has caused the sudden rarification of the atmosphere and determined it to that particular spot? In short, what scope is afforded under the regime of uniform natural laws for such variations and peculiarities as are of daily and hourly occurrence all over the globe? Is the vast machinery so set that all these fluctuations, small and great, come round in constantly recurring cycles? Will not true science rather frankly ascribe them to unknown but ever operative causes akin to those already referred to?

We have, perhaps, no right to complain that modern science does not attempt to explain the nature of those unknown agencies whose presence and potency it may not deny. But should it not take more account of them in framing its system? To base a verdict upon a moiety of the evidence is certainly not in the interests of truth. There is manifestly still needed some complementary philosophy of the other side of phenomena — not necessarily of the supernatural, for as the individualisms are as much natural as the similitudes, so we see no reason why the unknown causes of the former

should be regarded as less natural than those — as a matter of fact equally unknown — of the latter. In other words we see no reason why, to beings conscious of volition, an alternative cause, a cause capable of producing varied results, should be regarded as more inconceivable than one producing simply uniform effects. We need an explanation of peculiar and anomalous, no less than of normal, phenomena. Law, in its scientific acceptation, must still and ever retain imperial sway over a large domain, but its apotheosis must be deferred. At any rate it must be content to take a seat in the Olympus of science subordinate to that occupied by that mysterious agency which is ever controlling and modifying all its operations, an agency which seems to have its best analogue in the human will, not the will as conceived by certain positivists, a mere automaton, pulled hither and thither by wires of motive, but the will as it exists in the vulgar conception, which is the firstborn of consciousness, a real cause in itself, with powers of independent choice — a cause, moreover, whose nature and operations are only in degree more difficult of conception than those of any of the physical causes with whose operations science is so conversant.

We have thus far attempted to show that the theory of law utterly fails to account for a very large and important part of the phenomena of the physical world — that, even granting its advocates and worshippers the existence both of the original “world-stuff” and of those unknown forces whose operations they call law, in any number and variety, they yet are quite unable to account for myriads of facts patent to all observation and experiment. Let us now turn, for a moment, to human life in its abounding forms and phases. We have already alluded to the boundless diversity in mental and moral features so characteristic of our race. We glance in thought over the world with its teeming millions. Each has not only a cast of character and a type of mind, but also a place, a responsibility, and a destiny peculiarly his own. Each sustains relations to persons and to things distinct and different from those of every other.

Each has, in short, not only a personality, but an individuality. Now, it is evident that on the theory which ascribes every result to the operation of uniform and unintelligent forces, all the difficulties already pointed out in other spheres reappear and demand solution. How have blind natural laws ever been able not only to produce each individual as such, but also to fix for individuals, as well as nations, "the appointed seasons and limits of their abode"? But let us now waive all these preliminary objections. Let us grant all these existing conditions and relations, as so many postulates to the believers in the sway of law, and turn to another problem, of necessity a very complicated one, from the very fact of the presence of all these elements of variety. That problem is to account, on the theory we are discussing, for the events of a year, or a day, in the life of any one individual, thus excluding all room and necessity for the presence of any superintending intelligence.

Here it may be proper to observe, even at the risk of repetition, that the question is not whether law exists, whether its operation cannot be seen and traced ever and everywhere. The most unswerving faith in the most absolute sway of an Overruler is quite compatible with a belief in uniform, unchanging law. Nay, uniformity is inseparable from the very notion of a perfect Ruler. There can be, in a consistent conception of the operations of such a being, no room for any of the weaknesses and imperfections which mar the harmony of all human character and action—no nice balancings of conflicting motives—no troublesome doubts on questions of the wise and the unwise, the right and the wrong—no struggles between self-interest or depraved inclination, and conscience—no hesitating council between "the genius and the mortal instruments." On the contrary, such a conception must embrace the most perfect adjustment of means to ends, the most complete control of necessary agencies, but at the same time the most absolute foreknowledge and pre-arrangement. But tiresome uniformity is no necessary element. Omniscience need by no means be tied down to any one set of

agencies, or any one mode of operation. A thousand courses of events in respect to the individual might all be seen to be equally right, equally in accord with both absolute justice and goodness, and thus ample scope be afforded for that love of infinite variety which we find abounding in all nature's handiwork.

The question whether all events in the lives of individual men and women are simply the products of a network of unchanging, unchoosing laws, or whether all are under the direct supervision and control of superhuman agencies and a supreme intelligence, is one of the most intense interest to all. It naturally resolves itself into two divisions; the one touching events entirely beyond the control of the person affected; the other, those arising out of his own character and conduct. The former involves the alternatives of law and providence. The latter suggests the question of the abstract ability to predict human actions, or, in other words, the nature of the will. But, in regard to the whole subject, it is evident that here, too, there can be no middle ground. We often hear language used, even by firm believers in a superintending Providence, which would seem to imply a conviction that the general course of human affairs has been given over largely to the operation of uniform natural and moral causes, but that the Almighty has reserved to himself the right to interfere in special cases, interrupting or modifying those laws as occasion demands, and thus giving rise to what are sometimes called special providences. The man who has had a hairbreadth escape from destruction by pestilence or fire or sword, is called upon to return thanks for his preservation. Of course, if we are hourly dependent upon the untiring care of a benevolent All-Father, it is well that we should be occasionally startled into something more than a mere general and hazy recognition of the fact. But it would seem to require but a little patient reflection to convince any one that if God rules personally at all, he must rule over all and always. If he takes cognizance of the loss of a thousand lives, he must also note the fall of a hair. If

the terrible railway disaster, which in an instant brings desolation and death to a thousand homes, be not beneath the notice of an all-seeing eye, that eye cannot but have previously been cognizant of the flaw in a bit of steel, or the momentary inadvertence of a switch-man, which led to it. If the wail of the heart-broken widow and the homeless orphan, ascending to heaven amidst the ruins of a desolated city, reaches the ear of the Eternal, that ear cannot have been regardless of the first crackle of the tiny flame in which the conflagration originated. If the sufferings of one of his children, condemned through some trifling accident (?) to life-long darkness and misery are not beneath his notice, then he must stoop to regard the movements, and the causes of the movements, of a grain of sand or a jet of steam capable of producing such a catastrophe. Ten thousand incidents from history and every-day experience will instantly occur to every thoughtful mind, to prove that the most important and momentous events in the life of men and of nations, are often pivoted upon what are to human eyes events as trivial as can be conceived of. The machinery which moves the world of mind and matter, and regulates all the phenomena of human life, is vast and complicated beyond all finite conception. Either an infinitely wise and mighty hand must be ever upon the hidden springs and regulators, or all its operations must be blind and uniform alike. Any middle hypothesis must inevitably leave room for the absurd and startling anomaly that something might some time occur for which he was unprepared, and so the infinite Ruler of the universe be taken by surprise.

In attempting to show that the facts of human life and conduct are such as emphatically forbid the assumption that blind law is omnipotent, we might repeat the argument already used in another connection, from the absence of uniformity. What student of history or biography, or of human life, can point us to the two individuals amidst the myriads who now people the earth, or who have gone down to the silent cities of the dead, whose lives were marked by

precisely the same events, or moulded by precisely similar influences? We simply touch the problem, and leave each to find his own solution.

Again we might refer to the prevalent belief of all the ages. This belief so widespread, so deeply rooted, in the rule of supernatural intelligences and agencies, whether regarded as a product of intuition, or an induction from experience, or both, should surely count for something. If all events are the offspring of deaf, inexorable forces, every man's history and destiny must be unalterably shaped by those forces in one of two ways. Either the laws of their operation must be discovered, and they manipulated by him, or he must be the sport of forces which he is powerless to understand or to control. In either case the origin of any form of religion must be as inexplicable as its cultivation is irrational. Fatalism and egotheism must be the mutual and sole complementary elements of sound philosophy. Surely, one would think, if this be truth, it is truth of such a nature that the observation and experience of all the centuries could scarcely have failed to discover it, or at least to recognize and hold it fast whenever it was from time to time revealed by some keen-sighted Leucippus or Lucretius. But no; those apostles of Positivism who have appeared at intervals along the ages are but the exceptions which prove the rule. Swiftly and surely the human mind has reverted to its deities and its hecatombs. The victims upon ten thousand heathen altars, and the voices from ten thousand mosques and pagodas and Christian fanes, unite in declaring how the teachings of nature and of fact have ever been read by the masses of our race.

We may try the experiment in another way. Let us go into quiet hamlet or crowded city, and taking any thoughtful common man by the hand, let us lead him aside and ask him to look back carefully and calmly over his past life, to scan closely its whole history, and say whether it appears to him to have been mainly moulded either by uniform laws, or by the energy of his own will. Will he not tell us that, while

on the one hand, he has been conscious of acting every moment as a free agent in accordance with his own volitions, and while on the other he has ever felt himself hedged in on the right hand and the left by great moral and social laws, every retrospect yet forces upon him the conviction that his course has, after all, been chiefly shaped by circumstances and influences which his utmost sagacity was utterly powerless either to foresee or to control; that here his way was walled across and a new path marked out for him; that there the currents of thought and feeling were mysteriously turned into a new channel; that just at this point an unforeseen event, a trifling accident, left its mark upon his whole life, while again some insurmountable obstacle or terrible catastrophe brought confusion to all his plans? Hence he is ready to endorse the sentiment of that great student of human conduct who pierced the mysteries of the heart, and held up the mirror to life, as, perhaps, no other uninspired man has ever done, and exclaim: "There's a divinity that shapes our ends, rough hew them how we may."

We are well aware that very different degrees of value will be attached by minds of different constitutions and habits to the testimony of plain common sense and shrewdness upon such subjects; but those who make observed facts, physical, mental, and moral, the basis of all philosophy can hardly object to a little experimenting upon this class of phenomena. Nor can it be considered strange that the conclusion of the masses should be so unanimously against the rationalism of the day. Take, for instance, that which is to the common mind the most impressive and terrible of all phenomena — death; that dark, mysterious thing which is ever and anon looming up on the horizon, and like a black, impassable wall, cutting short the narrow *cul de sac* of life's hopes and aspirations, casting its gloomy shadow upon the brow of thoughtlessness, freezing in its chill atmosphere the sneer upon the lips of the scoffer, and mocking the utmost penetration of the sage. What boots it to remind us that "the solvency of great mercantile companies rests on the

validity of the laws which have been ascertained to govern the seeming irregularity of that human life which the moralist bewails as the most uncertain of things"? In vain the actuary collates his facts and figures, constructs his tables and computes his averages. He may prove clearly enough the existence of general laws and broad principles, but these are just what the rational believer in a divine government never doubted. Just what he longs to know, and just what no statistician can tell him, is, how these laws are guided in their operation so as to snatch one of a city and two of a family, or how and when and where will they select their next victim. Until something like this can be done, the common observer must fail to be convinced that the multitudinous messengers of the grim enemy, his plague and pestilence and famine, his flood and fire and sword, are not all under the control of will and intelligence.

In order to attain a more vivid conception of the intricacies of the problem which positivism proposes to solve by the application of simple, uniform principles, let us suppose a case. Any one will do about as well as another, if it but have verisimilitude. Here are three young men, reared in the country, the children of neighbors. They have had very similar advantages and influences and are about equal in mental endowments and moral susceptibilities. They resolve to see the world. They arrange to set out together in a ship about to sail from a neighboring port. The day arrives. They leave their respective homes in good time to reach the harbor at the appointed hour. Two of them arrive safely. The third is being driven rapidly by a friend to the appointed place when a stray bit of newspaper is borne by a passing breeze under the horse's feet. The animal rears, plunges, and oversets the vehicle. The young man is borne home with a broken arm and other severe injuries. A long illness is the consequence, in the course of which he has leisure and scope for thoughts and feelings such as he has never indulged before. He comes forth from his bed of pain with totally changed views of life and duty, prepares for college,

becomes an earnest and enthusiastic student, and eventually a useful and influential preacher. Meanwhile the ship, with his two friends on board, sets sail. Shall she safely reach her destination? Shall those young men complete their contemplated journey and return in safety to their friends? Or shall they, ship and crew, prove to be included in the percentage annually swallowed by the greedy Atlantic? Who will study the law, compute the averages, and tell us? At about the same time another ship is setting sail for the Western world from a port in Europe. Winds and tides carry both to and fro. Skilful hands hold the wheels and trim the sails. Breezes freshen into gales, gales rise to shrieking hurricanes, and hurricanes subside into calms, and both float still in safety upon the glassy deep. Day by day, hour by hour, they approach each other, now by direct courses, anon by circuitous routes. At length in the depth of a dark, stormy, midnight, while the outward bound vessel is struggling gallantly on in the teeth of a powerful gale, the man on the watch is suddenly startled by a huge, black, apparition to windward, dashing down upon the ship like a destroying fiend. He has scarcely time to shout "Down helm"! when there is a terrific crash. The vessel from the old world, guided with unerring precision,—shall we say by chance, or law, or an unseen hand, or what?—strikes the other amidships, cleaves her at a stroke as the axe the faggot, and passes in an instant over the shattered and sinking hulk. Where are now those two young men? Ask the foaming grave which yawns for a moment to receive the huge coffin, and then closes over it forever. But no, it has not swallowed both. One of them, distant a few feet from the other when the crash came, found those few feet of separation broad enough to span the gulf between time and eternity. He rises to the surface beside a floating spar; clings to it for long, agonizing hours, and is eventually picked up by a passing vessel bound to Australia. Destitute of money and friends he is put ashore at the Antipodes, is forced by sheer necessity to the diggings, falls into the companionship of

rowdies and vagabonds, becomes soon degraded to their level, and dies after a brief, wretched, worse than useless life. Now what genius presided over those three lives? Not their own wills, for those all impelled them at the outset, in the same direction? Was it chance? Who or what is chance, that it should be the arbiter of human life and hope and destiny? And if chance, then chance overrides and frustrates law, so that no longer law, but chance, is the omnipotent ruler. Was it law? Some of those who claim to stand in the front rank of the philosophers of the day will answer, yes. We call upon them for some explanation, some unravelling of all those simple yet mysterious complications, which could bring about from conditions so similar, results so unexpected and so diversified. Let them thread their way backward through the maze, the shifting winds, the sailing qualities of the vessels, the influences which prompted every turn of the wheel by the hand of the helmsman where a single inch of motion a day or a week before might have changed the whole current of events, the origin of the idiosyncrasies of mental character which caused him to be just so affected by such influences, the origin and history of the ships and of those who built them, the previous history of the young men respectively, of their parents, of the events which placed them just where they were and made them just what they were; nay, even the minutest facts connected with the production and movements of the bit of paper which was so potent in changing the whole life-course of one of the parties concerned. Let any unbiassed mind attempt thus to follow back step by step the interminable chain of effect and cause, ever remembering that the slightest change in the most trifling of ten thousand apparently trifling antecedents would have changed the whole history — let him try to explain all the phenomena by the hypothesis of a network of forces utterly destitute of choice or volition, until his brain reels, and see if he will not be glad, in sheer despair, to resort to the simple and more intelligible system, which regards all those forces as so many agents under the direction

of infinite mind and purpose. It is no explanation to assert that every link, small or great, in the chain can be traced to its legitimate antecedent. For, in the first place, no finite thought can trace the succession backwards beyond a certain point, while it is manifest that somewhere away in the infinite unknown beyond that point, lies the first event of the series in which first event was contained the germ of the whole. And in the second place the coincidences in time and place, no less than the successions, must be equally taken into the account, and traced to their causes. Hence, even if every separate thread in the fabric, whether we regard that fabric as a tangled mass, or a mysterious fragment of a wondrous and perfect pattern embracing the ages, could be traced back to its — what shall we say, origin? — yet the cause of every turn and loop in the interweaving would yet remain amongst the unexplained phenomena.

Professor Huxley, in his essay on the physical basis of life, lays down the principle that in order to the performance of one's duty in this world of misery and ignorance "it is necessary to be fully possessed of only two beliefs; the first, that the order of nature is ascertainable by our faculties to an extent which is practically unlimited; the second, that our volition counts for something as a condition of the course of events." To whatever conclusion the following out of the foregoing train of thought may lead us, in respect to the first of these beliefs, no one, certainly, can long busy himself with such inquiries without being fully possessed of the second. The subtile yet powerful agency of the human will counts for very much indeed as a condition of the course of events. The whole tenor of our views upon the great questions of law and providence must be largely affected by our conceptions of the nature of the will. Many, we dare say, like ourselves, would be right glad to have a fuller statement of the views of so eminent a thinker as Professor Huxley upon this point. Especially we should be glad to learn how he would rescue the statement above quoted from the dilemma it suggests. Are our volitions themselves but

so many factors in the eternally continuous progression? Then the second of the two theses must be nugatory, as included in the first. Is our volition a condition standing outside and independent of that ascertainable order of nature? Then is the second manifestly inconsistent with and contradictory to the first. If there is a third possible assumption capable of harmonizing the two statements, we have failed to discover it.

It would be entirely beyond the scope of the present Article to enter, at all fully, into the vexed question of the will. We simply venture a remark or two in passing. That it is a real power, does actually "count for something as a condition of the course of events," we need not stay to prove, as none will question the fact. This is one of those beliefs which, as Professor Huxley again says, "can be verified experimentally as often as we like to try," and therefore, "stands upon the strongest foundation upon which any belief can rest." Those who seek elsewhere than in experiment for highest truths will reach the same conclusion.

The main question in respect to the will, pertinent to our present inquiry, is: Is it, too, subject to ascertainable laws in respect to its volitions? The affirmative answer is the only one open to the advocates of the theory of natural law we are discussing. To admit the contrary, to concede the existence within the sphere of those natural laws which determine the order of events, of a force or agent not subject to any ascertainable law, would, as already shown, be to undermine the whole fabric. And further, if the course of events is shaped or affected by any human agent, independent of and above natural law, the course is clear for inferring, *a fortiori*, the interposition of superhuman agents and an infinite will. The question then assumes momentous importance. Probably the most consistent and plausible view, from the positive stand-point, is that which regards the will as a real agent, but one which acts invariably and of necessity from motive, insomuch that in the presence of certain influences or ends a man, being what he is at the moment,

must inevitably choose or will as he does. Hence, given at any point in a man's history, on the one hand, the exact motives or influences brought to bear upon him, and, on the other, the exact knowledge of his mental and moral character, and his course can be predicted with infallible certainty.

Were we not desirous of keeping our arguments, as far as possible, within the reach of experimental tests, we might stay to point out the fatalistic tendencies of such a view: Given, the data of a man's present character and his future surroundings, and not only his future life, but his eternal destiny, could be deduced with mathematical exactness. But a man, as a logical consequence of this theory, does not and cannot, in any proper sense, either mould his own character, or choose his own surroundings. Where, then, is the basis of real responsibility?

But we venture to question the correctness of this widely prevalent view on experimental grounds. We deny that it tallies with the facts of consciousness. We claim that the will reveals itself to the consciousness of every man not prepossessed with a theory, as a power not simply of obeying the strongest motive, or motive at all, if there is any difference in the two statements, but as a power of choosing and selecting motives to obey, or, in other words, ends to pursue. Or, if it be objected on metaphysical grounds that consciousness can only testify to an act, not to the nature or possession of a power, we appeal to it in another form: Is not every man conscious, every day of his life, of making choices, in matters trifling and perfectly indifferent, in regard to which it would be utterly beyond the utmost power of analysis to discover any possible reason for the preference? He must take one footpath or the other, select a volume from the uniform row, or a pen from amidst a hundred fellows in the box. Were his will the slave of motive, which it is often represented, and he obliged to remain inactive until grounds of preference were discovered, he might remain motionless till doomsday.

We question whether much confusion is not inadvertently

introduced into our notions of will by our habit, to some extent a necessary one, of speaking of it as one of the faculties of the mind. May it not rather be, like thought, of the very essence of mind itself? Is a power of choice and of action independent of motive more difficult of conception to a being conscious of willing, than a power of attraction as a universal quality of matter, to one familiar with the fact of attraction? The one is but in degree, if at all, more wonderful or mysterious than the other. Those who talk glibly of unipotent forces as something co-extensive with or inherent in matter, should not stumble at the idea of an alternative force, not ruled, but ruling; not controlled, but controlling; not affected, but effecting, as a prime characteristic of mind. Those who believe in the ever-present activity of an omniscient and omnipotent Will — a Will which either is or creates its own ends, should be well assured that truth requires the admission, before they play into the hands of a rationalistic positivism, by advocating or assenting to views so entirely in harmony with the fundamental principles of that system, and tending so strongly to reduce the human agent, with all his wondrous powers, to the position of a slave in the thrall of circumstances. They should not find it difficult to conceive of the finite will as a faint yet faithful transcript of that Infinite one, in its image and after its likeness.

Such a view of the nature of the human will, subordinate still as it must ever be to the Supreme will, leaves, if we mistake not, a freer scope for the exhibition of those spiritual manifestations to which we have time barely to refer, but which constitute some of the most interesting and important of all phenomena. This class of phenomena, embracing a large and most interesting mass of facts, equally within the range of observation and experiment, and so equally susceptible of proof, has not, it seems to us, been sufficiently insisted on by the opponents of materialistic philosophy. Take that which we call conversion. Deal with it, not as a religious dogma, but as a question of fact, and so a proper subject of philosophic investigation. We can scarcely conceive that the thing itself,

even in its more marked and striking forms, the occurrence of great and radical changes in all that constitutes the groundwork of character and makes a man what he is morally, can stand in need of proof to any man of observation, brought up in a Christian land. But if so, the proof is readily forthcoming, and good service might, we think, be rendered even to philosophic truth by collecting and putting it into a tangible and indisputable form. We have but space to put a single case, or two, to the believer in the omnipotence of natural law. Here stands before a shop-window, in a village in Bedfordshire, England, a young man of coarse exterior. Some trivial provocation has aroused his anger, and he is pouring forth a volley of oaths so fearful and blasphemous that even the woman of the shop, herself an abandoned wretch, comes forth and tremblingly reproveth him. We wish explained, in harmony with natural laws ascertainable by our faculties, the influences which transform this selfish, half-savage boor into a pure and peaceful citizen, an intelligent defender and martyr of soul-liberty, and a self-sacrificing philanthropist. Again, here, in a Prussian town, is a boy who at ten years of age is a practised thief, stealing repeatedly from his own father, and who when he reaches manhood is an adept in vice and an impersonation of meanness, descending even so low as to betray the trust reposed in him by his travelling companions, and purloin from the common purse with which he is intrusted. For the last forty years a wonderful work of philanthropy has been carried on in Bristol, England. Building after building has been erected, in which hundreds and even thousands of destitute orphans have been housed, fed, clothed, and educated; snatched from vortices of guilt and misery, and fitted for lives of honorable usefulness. The one man who is the life and soul of this great and constantly enlarging work, whose philanthropy originated it, by whose persistent and unbounded self-denial it has been fostered, and to whose unimpeachable integrity the hundreds of thousands of pounds necessary for carrying it on are cheerfully and spontaneously intrusted by people all over

the world, is the boy thief and the base young man above described. The lives of John Bunyan and George Muller, and of thousands of other regenerated men, are *facts*, as patent and as worthy of study and explanation as any revealed by microscope or spectroscope.

We had intended to close this paper with some reference to the scripture doctrines of faith and prayer, as illustrating the existence of law in the world of spirit, as well as in that of matter. Want of space compels us to dismiss the subject with a word. The unusual, possibly undue, devotion of philosophers of the day to the study of natural science has not been without its influence upon the minds of many devout believers in a world of spirit, as well as of matter. It would not be difficult to find, even amongst Christian believers of some culture, those whose minds have become so impressed with the wide domain and uniform operation of natural law that they hesitate to see in any physical occurrence the influence of anything but natural forces. They shrink from reading a lesson in the divine government in any event which can be traced to physical causes, and sometimes fear to plead the plain and unqualified promises of scripture in prayer for temporal good, lest in some way they should, as has been said, "impale the Almighty upon the horns of a dilemma." The aim of this paper has been to show that natural law, pure and simple, utterly fails, and must from its very nature utterly fail, to explain a single individual peculiarity in men or things, or a single unusual occurrence in the course of nature. It is only by resort to unseen and unknown causes that the simplest of these can be explained. How, then, can it be shown that the scripture doctrine of a spiritual universe, surrounding, enfolding, permeating, and governing the material, is not the reasonable and true explanation of these unknown causes in which, we have seen, are enwrapped the germs of all varieties and individualisms in phenomena? But who, believing in the reality of spiritual intelligences and forces can set limits to their operations? If the agency of spiritual forces and an Omniscient Will count

for anything in the course of events, they must be supreme. Nor is it in the slightest degree necessary to suppose any antagonism, or even interference, on the part of these with natural law. On the contrary, we have only to conceive of them as behind and above physical law, comprehending, directing, and controlling all its action, in full accordance with an infinite and all-embracing purpose, in order to have a key not otherwise furnished to the mysteries of nature and life, and even of miracles.

And such spiritual forces must doubtless be subject to laws of their own sphere as invariable as those of the natural world, though on a higher plane than these. We are not translated to a sphere above law, but to one of higher law. May we not reverently find an illustration in the teachings of Christ in respect to prayer? Prayer is omnipotent in proportion to the degree of faith. Herein is revealed a law of spiritual causation by virtue of which the finite human spirit is enabled to lay hold upon the might of the Infinite, and use it, not for selfish or worldly, but for just and holy purposes. The security that a power so wondrous can never be prostituted is found in the very nature of the faith which brings it. Such a faith, lifting the poor child of humanity into the very presence of the High and Holy One, bringing him into so intimate union and communion with the Father of spirits, must by its very operation subdue every selfish and unworthy thought, and bring every desire and affection into sympathy with the high and holy purposes of the infinite love.